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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

FEB 23 1988

MEMORANDUM

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

SUBJECT: Treatment of grapes with chlorine. Pre-registration meeting to determine data requirements.

FROM: Robert S. Quick, Section Head
Tolerance Petition Section I
Residue Chemistry Branch/HED (TS-769)

Between:

Rick Tinsworth	-	RD, EPA
Walter Francis	-	RD, EPA
Jeff Kempter	-	RD, EPA
Vivian Prunier	-	RD, EPA
Brian Dementi	-	HED, EPA
Robert Quick	-	HED, EPA
Judy Hauswirth	-	HED, EPA
Juanita Wills	-	RD, EPA

and

David Holzworth	-	Akin, Gump
Michael Wei	-	Ampro
Edrundo Varas	-	Frupac
Victor Zettow	-	Frupac

TO: RCB Files

Background

Chlorine gas is presently used in water treatment. Sodium hypochlorite is GRAS under 40 CFR 180.2(a). Calcium hypochlorite is exempt from the requirement of a tolerance for post-harvest on potatoes (40 CFR 180.1054). Calcium hypochlorite is cleared as an inert ingredient under 40 CFR 180.1001 (c)(d) as a sanitizer and bleaching agent. There are also a number of FDA clearances for sodium hypochlorite under 21 CFR.

Discussion

The registrants requested this meeting to find out what data EPA will require to support the use of slow release pads containing calcium hypochlorite in grape shipping containers. Chlorine gas is slowly released from the pads and is supposed to maintain grape quality during shipping. The use would be analogous to the use of sulfur dioxide/sulfite salts which are presently in use on grapes.

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In light of the many clearances for hypochlorites, RCB felt that an exemption from tolerance might be appropriate for this use and deferred to TOX Branch, HED, as to what data would be needed.

TOX feels that this use of generating chlorine gas to directly come in contact with grapes is different than applying hypochlorites to food. TOX wants residue data for total chloride residue on treated grapes and on untreated grapes. The difference in chloride residue levels would be attributed to the chlorine treatment. If the difference is significant, TOX wants the chloride residues to be identified. I told the registrant that any residue studies conducted should reflect a "worst case" situation and that the protocols used in the sulfite grape residue studies could be used as models. In response to the registrant's question regarding the method of choice for the chloride analyses, I told them that any validated method of sufficient sensitivity could be used.

TOX is not requesting any toxicology studies at this time.

There was also a discussion on hypochlorite pad labeling and on packing box labeling. Fees for petition and amendment submissions were also discussed.

The registrant will submit protocols for our review prior to the initiation of any studies.

TS-769:RCB:R.Ouick:vg:Rm804:CM#2:X77484:2/22/88
cc: Calcium hypochlorite SF, circu., RF, Ouick, Dementi (TOX),
W. Francis (RD), V. Prunier (RD)
RDI: R. Schmitt, 2/12/88